

Remarks

In view of the above amendments and the following remarks, favorable reconsideration of the outstanding office action is respectfully requested. Claims 1 – 38 remain in this application.

1. Drawings

The Examiner has objected to the drawings under 37 CFR 1.84(p)(5) because reference numeral 108 is not included in the Drawings. In response, the Applicant has amended Figure 2 to include reference numeral 108. A copy of an annotated sheet showing changes to amended Figure 2 is attached hereto.

2. Allowed Claims/Subject Matter

Applicant notes with appreciation that the Examiner has indicated the subject matter of claims 5 – 6 is patentable, and would be allowable if rewritten in independent form.

3. § 103 Rejections

A. The Examiner has rejected claims 1, 7 – 9, 22, 23, and 33 – 35 under 35 U.S.C. § 103 as being unpatentable for obviousness over U.S. Patent No. 6,275,797 to Randic.

Independent claims 1, 22, 33, 34, and 35 are patentable under 35 U.S.C. § 103 because the Examiner has failed to point out where Randic teaches all of the elements recited in the claims. For example, the Examiner has failed to show where the prior art teaches the steps of transmitting (claims 1, 33, 34), receiving (claims 1, 33, 35), processing (claim 1, 33, 35), or comparing (claim 1, 33, 35). The Examiner also has failed to show where the prior art teaches a system that includes a transmission unit and a receiving unit as recited in claim 22. Furthermore, Independent claims 1, 22, 33, 34, and 35 are patentable under 35 U.S.C. § 103 because the Examiner does not provide some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference teachings.

Randic is directed to a method for testing the voice path in a communication network by using speech recognition technologies. The method typically includes generating computer

generated voice signals. The voice signals are packetized and transmitted from a transmitting computer to a receiving computer via the packet switched network. The received voice signals are recovered and interpreted by a speech recognition engine. The engine is configured to identify speech patterns in the received voice signals. The speech patterns are then compared to the reference speech patterns of the voice signals sent from the transmitting computer to thereby generate a voice path quality factor. The voice path quality factor is a relative indicator of the quality of the voice path. A voice path quality factor may be generated by comparing the number of matching words in the reference file and the received file. In one embodiment, if there are 3 matching words the voice path quality factor may be quantified as equaling three (3). Alternatively, voice path quality factor may be expressed as a percentage of matching words; i.e., 3 out of 4 matching words would yield a quality factor of 75%.

According to the **MPEP 2143**, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

I. The prior art references do not teach or suggest all the claim limitations.

a. Claims 1, 33, 34, 35:

i.) The Step of Transmitting at least one set of N waveforms

The Examiner asserts that Randic discloses the step of transmitting at least one set of N waveforms from the first network location, each transmitted waveform including a waveform characteristic operative to assign a predetermined value relative to other waveforms in the at least one set, such that a predetermined sequence of values are assigned to packets carrying the N transmitted waveforms, as recited in claim 1, claim 33, and claim 34.

In particular, the Examiner asserts that this step is disclosed in col. 3, line 50 – 61, and col. 6, lines 20 – 43. However, the text in col. 3, line 50 – 61 does not describe the transmission process, it refers to the Automatic Voice Recognition (AVR) system employed in

receiving computers 14, 16, and 18 (See col. 3, line 40). The text in col. 6, lines 20 – 43 provides a more detailed description of the AVR system. The AVR generates a voice quality factor by comparing the number of matching words in the received file and a reference file. The cited text does not describe the transmission process employed by Randic.

As such, the Examiner has failed to point out where Randic discloses the step of transmitting as recited in claims 1, 33, and 34.

ii.) The Steps of receiving and processing a telephonic signal to obtain a sequence of values

The Examiner asserts that Randic discloses the steps of receiving at least one telephonic signal at the second network location via the communications channel and processing the at least one telephonic signal to obtain a received sequence of values, as recited in claim 1, claim 33, and claim 35.

In particular, the Examiner asserts that these steps are disclosed in col. 5, line 23 – col. 6, line 43. In the text in col. 5, lines 50 – 67, Randic teaches that impairments may be generated by propagation delays, mismatches between a telephone and a line interface, or by other such problems. AVR receive-side processing is described in col. 6, lines 22 – 26. The text states that “Voice test file 17 is received at input terminal 15 of computer 14 and processed by AVR system 24. AVR 24 recognizes the received voice test file 17 as the sentence ‘This is a beach.’ ” Therefore, the AVT system is configured to compare interpreted words, phrases, and/or sentences. On the other hand, the cited text does not describe processing a telephonic signal to obtain a sequence of values.

As such, the Examiner has failed to point out where Randic discloses the steps of receiving and processing as recited in claims 1, 33, and 35.

iii.) The Step of Comparing

The Examiner asserts that Randic discloses the step of comparing the received sequence of values to the predetermined sequence of transmitted values to detect dropped packets without having access to packet switched network control data, as recited in claim 1, claim 33, and claim 35.

The Examiner asserts that this step is disclosed in col. 5, line 23 – col. 6, line 43. The Examiner states that this is especially shown in col. 5, lines 44 – 67. Referring to col. 5, lines 44 – 67, there are three paragraphs included in the cited text. The first paragraph teaches that

the elements included in the end-to-end transmission path often cause the received voice test file to have missing data packets. However, the text does not describe any means for detecting missing packets. The second paragraph states that each node in the communication link may have an impact on perceived voice quality. As noted previously, the third paragraph states that impairments may be generated propagation delays and other such problems. The text in col. 5, lines 44 – 67 does not include any description of comparing a received sequence of values with a predetermined sequence of transmitted values. Again, the cited text also fails to describe any process for detecting dropped packets.

With respect to Col. 6, lines 1 – 43, the comparison performed by AVR system 24 is disclosed in lines 27 – 36. The text teaches that a “reference interpreted voice test file” is compared with an “interpreted received file,” by “comparing the number of matching words” in the reference file and the received file. Thus, the cited text in Randic does not teach, suggest, or disclose the step of comparing the received sequence of values to the predetermined sequence of transmitted values to detect dropped packets, as recited in the claims.

The dependent claims are allowable in their own right. For example, claim 7 recites that the waveform includes a first segment and a second segment. Claim 8 recites that the second segment includes the representative characteristic. The Examiner states that these elements are disclosed in col. 3, lines 31 – 67. A careful reading of the cited text reveals that there is no discussion of waveform segments therein. The Examiner states the word “segment” is very broad and can include a single letter or word. The Applicant disagrees. Those of ordinary skill in the art understand that waveforms are typically represented by a line that varies in amplitude with respect to time. Thus, a segment of a waveform refers to a portion of the line. However, the Examiner fails to explain why one of ordinary skill in the art would ever equate a waveform segment with a letter or a word. If a word or letter can be represented by a waveform having two distinct segments the Examiner is required to provide a reference that describes this functionality.

Accordingly, the Applicants respectfully assert that claims 1 – 21 and 33 – 38 are patentable under 35 U.S.C. § 103(a) because the Examiner has failed to show where Randic teaches or suggests all the claim limitations recited in claims 1, 33, 34, or 35.

b.) Claim 22:

Regarding claim 22, the Examiner fails to provide an independent examination of this independent claim. Claims 22 recites a transmission unit configured to send at least one set of N waveforms over the telecommunications network, each transmitted waveform including a waveform characteristic operative to assign a predetermined value relative to other waveforms in the at least one set, such that a predetermined sequence of values are assigned to packets carrying the N transmitted waveforms. The Examiner fails to point out where the claimed transmission unit can be found in Randic. It is incumbent upon the Examiner to point out where each and every element of the claimed invention may be found in the cited reference. He has failed to perform this essential task.

Claim 22 also recites a receiver unit operative to receive a telephonic signal from the telecommunications network, the receiver also being configured to derive a received sequence of values from the telephonic signal, and compare the received sequence of values to the predetermined sequence of values to detect dropped packets, without having access to packet switched network transmission control data. The Examiner also fails to point out where the claimed receiver unit can be found in Randic.

Applicant has pointed out that Randic does not teach or suggest any of the methods recited in the claims. Applicant respectfully suggests that Randic does not teach or suggest any system, or system elements, that perform these methods either.

The dependent claims are also allowable in their own right. Claim 23, for example, recites that the transmission unit includes a computer-readable medium for storing data representing the at least one set of N waveforms, a processor, and a codec. In his rejection, the Examiner merely repeats the claim language and points to col. 4, line 31 through col. 6, line 43. The Applicant respectfully asserts that the Examiner must point out where, in this very large block of text, each element may be found. The Examiner has failed to make a prima facie argument because he has failed to point out where the cited text teaches or suggests all of the claim limitations.

Accordingly, the Applicant respectfully asserts that claims 22 – 32 are patentable under 35 U.S.C. § 103(a) because the Examiner has failed to show where Randic teaches or suggests all the claim limitations recited in claim 22 or in the claims depending therefrom.

II. There is no suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference.

The Examiner has failed to provide any statement regarding the suggestion or motivation, either in the references itself or in the knowledge generally available to one of ordinary skill in the art, to modify the Randic reference.

Accordingly, the Applicants respectfully assert that claims 1 – 38 are patentable under 35 U.S.C. § 103(a) because there is no suggestion or motivation, to modify the teachings of Randic.

B. The Examiner has rejected claims 2 – 4, 11, 12, 14 – 19, 24 – 28, and 36 under 35 U.S.C. § 103 as being unpatentable for obviousness over Randic, as applied to claims 1, 14, 22, and 35, in view of U.S. Patent No. 5,633,909 to Fitch.

I. The prior art references do not teach or suggest all the claim limitations.

The Applicant has pointed out that Randic does not teach or suggest the subject matter of independent claims 1, 22, or 35. The Examiner has failed to show, and indeed does not assert, that Fitch remedies the deficiencies of Randic with regard to the independent claims. Therefore, claims 2 – 4, 11, 12, 14 – 19, 24 – 28, and 36 are allowable by virtue of their dependency from the patentable independent claims.

Further, the dependent claims are also allowable in their own right. For example, with regard to claims 2 – 4, the Examiner asserts that Fitch (col. 7, lines 33 – 39) teaches the use of power signals to test a telecommunications system. The cited text states that an ND converter may be used to determine the power of sampled information. The Applicant points out that claim 2 recites that the representative waveform characteristic is a peak power level. Thus, Fitch does not disclose the subject matter of claim 2. The Examiner's rationale with respect to the other claims is similarly flawed.

Accordingly, the Applicants respectfully assert that claims 2 – 4, 11, 12, 14 – 19, 24 – 28, and 36 are patentable under 35 U.S.C. § 103(a) because the Examiner has failed to show where the combination of Randic and Fitch teach or suggest all the limitations recited in claims.

II. There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings.

According to MPEP 2143.01, “if the proposed combination would change the principle of operation of the prior art invention being modified, then the teachings of the references are sufficient to render the claims *prima facie* obvious.” In this case, Randic transmits a voice file over a packet network for comparison with a pre-stored voice file. The method tests the quality of the voice path, i.e., the packet network, by performing a word-by-word comparison of the transmitted file with respect to the stored file. On the other hand, Fitch teaches a unit for testing a System-Under-Test (SUT), such as a PBX. Fitch determines if the SUT stores and retrieves a test message properly (See col. 2, lines 28 – 37). One of ordinary skill in the art would not be motivated to combine Fitch with Randic, because the principle of operation behind Randic is to test the network voice path, whereas the principle of operation behind Fitch is to test a remote end SUT.

Accordingly, the Applicants respectfully assert that claims 2 – 4, 11, 12, 14 – 19, 24 – 28, and 36 are patentable under 35 U.S.C. § 103(a) because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the teachings of Randic with Fitch.

C. The Examiner has rejected claims 10, 20, 29, 30, and 37 as being unpatentable for obviousness over Randic, as applied to claims 1, 14, 22, and 35, in view of Fitch, and further in view of Newton’s Telecom Dictionary [hereinafter Newton].

I. The prior art references do not teach or suggest all the claim limitations.

The Applicant has pointed out that Randic does not teach or suggest the subject matter of independent claims 1, 22, or 35. The Examiner has failed to show, and does not assert, that either Fitch or Newton remedy the deficiencies of Randic with regard to the independent claims. Therefore, claims 10, 20, 29, 30, and 37 are allowable by virtue of their dependency from the patentable independent claims.

Further, the dependent claims are also allowable in their own right. The dependent claims recite that the representative waveform corresponds to a CELP symbol. The Examiner asserts that Fitch (col. 6, lines 36 – 43) teaches speech recognition and that Newton describes

CELP symbology. Even if everything the Examiner states is true, and it is not, the asserted combination still does not disclose the subject matter of the dependent claims. None of the references disclose using a CELP symbol as a representative waveform characteristic.

Accordingly, the Applicants respectfully assert that claims 10, 20, 29, 30, and 37 are patentable under 35 U.S.C. § 103(a) because the Examiner has failed to show where the combination of Randic, Fitch, and Newton teach or suggest all the limitations recited in claims.

II. There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings.

As noted above, Randic and Fitch are not properly combinable. The Applicants respectfully assert that claims 10, 20, 29, 30, and 37 are patentable under 35 U.S.C. § 103(a) because there is no suggestion or motivation to combine reference teachings.

D. The Examiner has rejected claims 13, 21, 31, 32, and 38 as being unpatentable for obviousness over Randic, as applied to claims 1, 14, 22, and 35, in view of Fitch, and further in view of U.S. Patent No. 5,748,876 to Hardy.

I. The prior art references do not teach or suggest all the claim limitations.

The Applicant has pointed out that Randic does not teach or suggest the subject matter of independent claims 1, 22, or 35. The Examiner has failed to show, and does not assert, that either Fitch or Hardy remedy the deficiencies of Randic with regard to the independent claims. Therefore, claims 13, 21, 31, 32, and 38 are allowable by virtue of their dependency from the patentable independent claims.

Further, the dependent claims are also allowable in their own right. The dependent claims recite that the representative waveform corresponds to a semantically encoded waveform. The Examiner asserts that Fitch (col. 6, lines 36 – 43) teaches speech recognition and that Hardy describes a system and a method for testing semantically encoded waveforms. Again, even if everything the Examiner states is true, and it is not, the asserted combination still does not disclose the subject matter of the dependent claims. None of the references disclose using a semantically encoded waveform as a representative waveform characteristic.

Accordingly, the Applicants respectfully assert that claims 13, 21, 31, 32, and 38 are patentable under 35 U.S.C. § 103(a) because the Examiner has failed to show where the combination of Randic, Fitch, and Newton teach or suggest all the limitations recited in claims.

II. There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings.

As noted above, Randic and Fitch are not properly combinable. Hardy applies to circuit switched networks whereas Randic applies to testing a packet switched network. Thus, the combination of Randic, Fitch, and Hardy is improper. The Applicants respectfully assert that claims 13, 21, 31, 32, and 38 are patentable under 35 U.S.C. § 103(a) because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings for the reasons provide above.

4. Conclusion

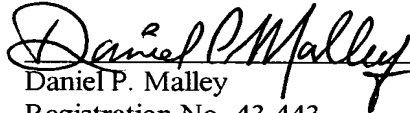
Based upon the amendments, remarks, and papers of record, Applicant believes the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicant respectfully requests reconsideration of the pending claims 1 – 38 and a prompt Notice of Allowance thereon.

Applicant believes that no extension of time is necessary to make this Response timely. Should Applicant be in error, Applicant respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Response timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to MCI WorldCom Deposit Account 13-2491.

Please direct any questions or comments to Daniel P. Malley at (607) 256-7307.

Respectfully submitted,

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Date: December 30, 1003